

In the Claims:

Please cancel Claims 1-15, 20 and 21;

Please add new Claims 22 – 26, as follows:

CLAIMS

I claim:

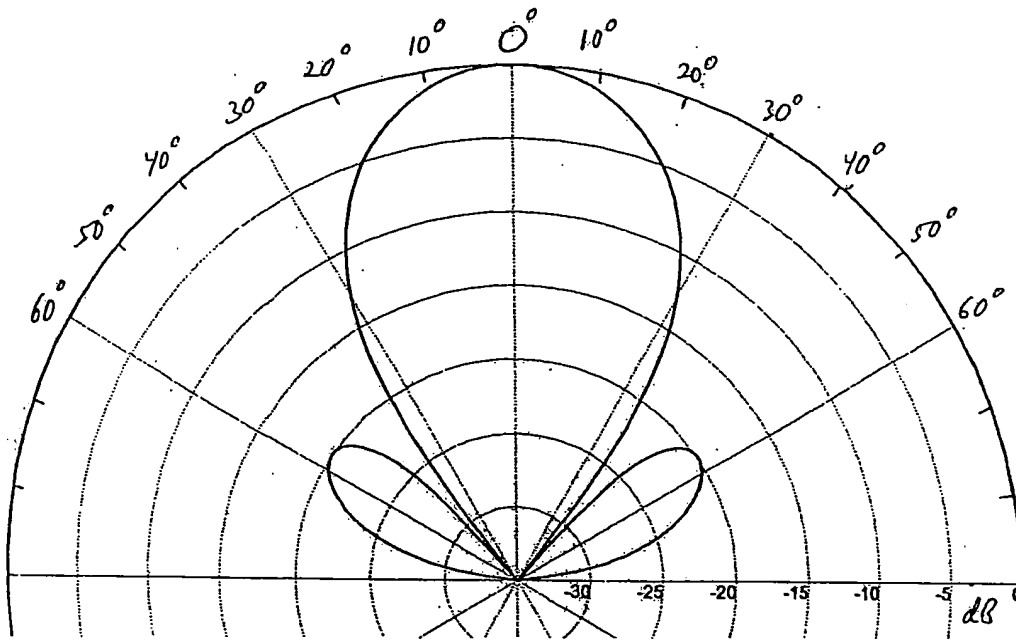
1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)
11. (Canceled)
12. (Canceled)
13. (Canceled)
14. (Canceled)
15. (Canceled)

16. (Withdrawn) In an object detection radar device, an electronic control system that controls the effective shape of the object detection zone by utilizing electronically controlled transmitted power variation in the radar transmitter circuitry to vary the transmitted power as a function of the instantaneous search range and thereby effectively shaping the detection zone of the radar as a function of range.
17. (Withdrawn) The device of claim 16 where the said control system varies power by digital control using circuitry selected from a group consisting of: digital circuitry, analog circuitry, or a combination thereof.
18. (Withdrawn) The device of claim 16, wherein the electronic control system comprises electronics selected from the group consisting of: an electronically controlled attenuator and an electronic-gain-controlled amplifier.
19. (Withdrawn) In an object detection radar device having radar transmitter circuitry and radar receiver circuitry, an electronic control apparatus adapted to vary the shape of the detection zone of the radar as a function of distance from the transmitter by dynamically adjusting the gain of a radar during its range sweep cycle by a system comprising tuning of transmitter power.
20. (Canceled)
21. (Canceled)

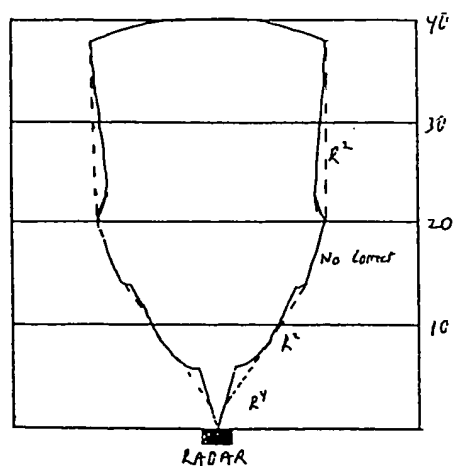
22. (New) A method of varying the polar plot of a radar antenna power pattern, said method comprising:

adjusting only gain of a radar's receiver with at least two different corrections at different ranges.

23. (New) The method of Claim 22 to vary the plot of Figure 4:

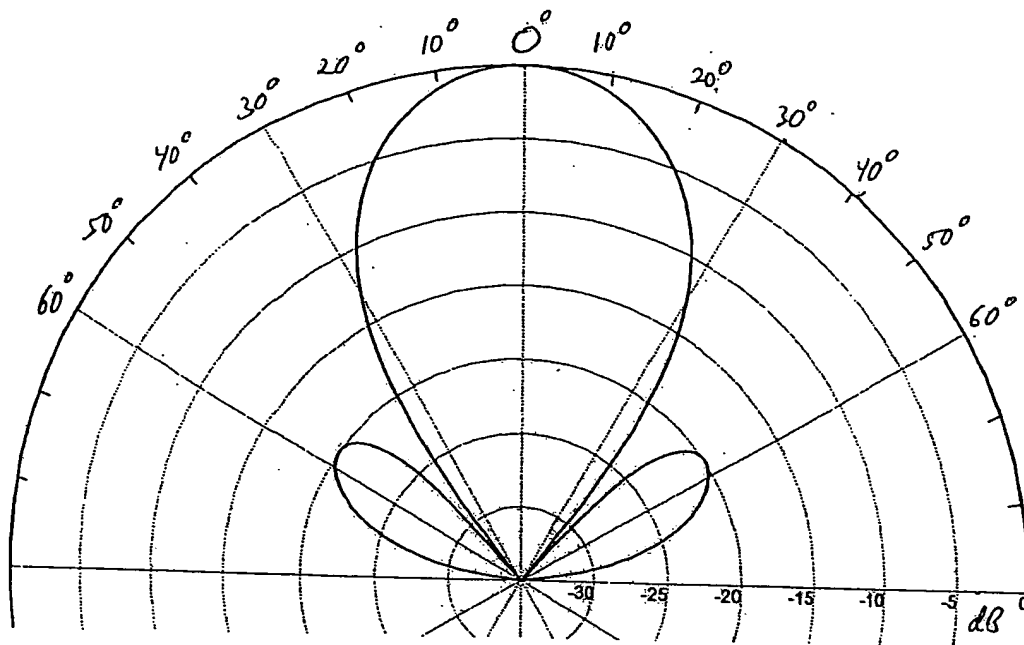


to become the plot of Figure 6A:

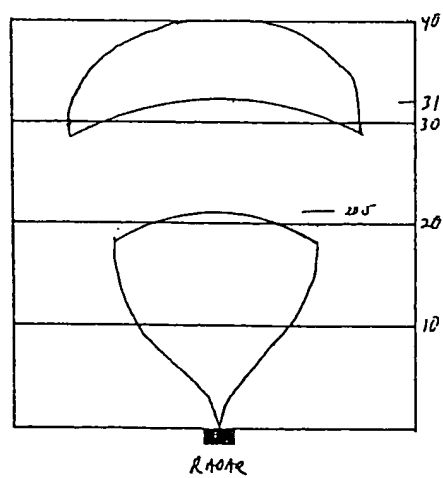


Pattern #1

24. (New) The method of Claim 22 to vary the plot of Figure 4:

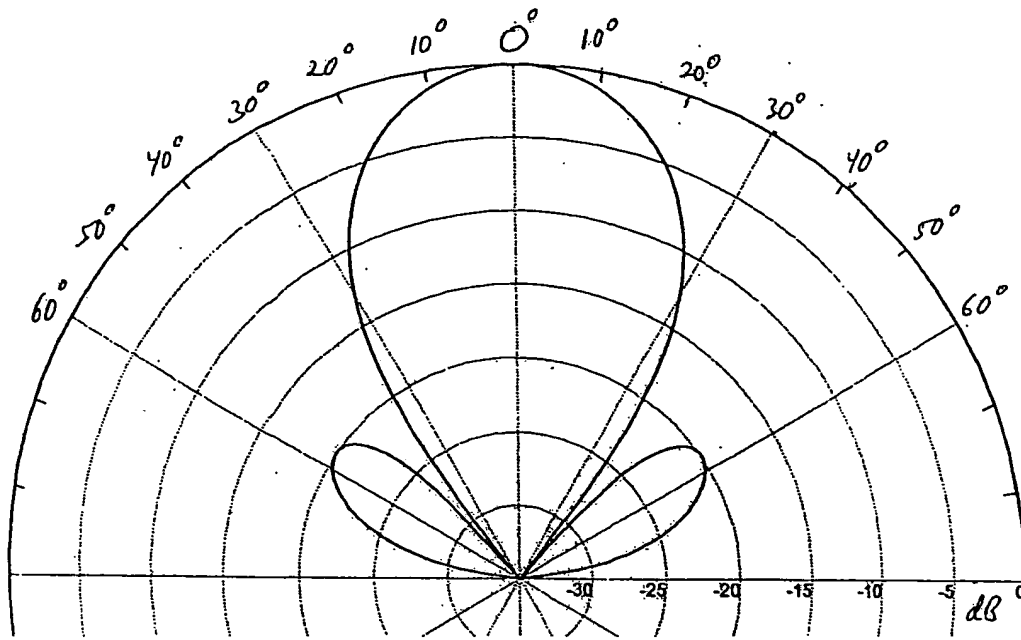


to become the plot of Figure 6B:

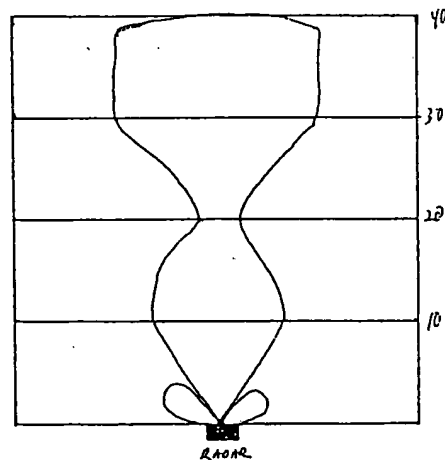


Pattern #2

25. (New) The method of Claims 22 to vary the plot of Figure 4:



to become the plot of Figure 6C:



Pattern #3

26. (New) A method of varying the shape of an object detection zone of a radar device which comprises:

adjusting only gain of a radar's receiver with at least two different corrections at different ranges.